



United States
Department of
Agriculture

Recreation Report

Forest
Service

Medicine Bow LaVA Project

Medicine Bow –
Routt National
Forests &
Thunder Basin
National
Grassland

Medicine Bow National Forest

Albany and Carbon Counties, Wyoming

Laramie,
Wyoming

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Existing Condition

The Recreation Opportunity Spectrum (ROS)

The Recreation Opportunity Spectrum (ROS) is the framework for integrating recreation values into National Forest Plans, project design, and management decisions. The Forest Land and Resource Management Plan provides direction on the allocation of resources to meet expressed local and national public needs. ROS is a planning tool used by land managers to classify areas according to the types of recreation opportunities available in different areas.

Each class is defined in terms of its combination of activity, setting, and experience opportunities. ROS classifications may range from *Primitive* inside a designated Wilderness to *Urban* in recreation areas adjacent to metropolitan areas. These classifications enable managers to provide a variety of settings for recreation, each with their own characteristics and opportunities. The Forest-wide standard concerning the ROS, as specified in the Forest Plan (2003), is “Conduct management activities to comply with the requirements of the adopted ROS class and scenic integrity objective in the management area prescription (pg. 1-56).”

Five of the seven possible recreation settings are found in the LaVA Analysis Area: *Roaded Modified*, (31%), *Roaded Natural*, (22%), *Semi-Primitive Non-motorized* (20%), *Semi-Primitive Motorized* (23%), and (3%) *Rural*.

Inventoried Roadless Area Characteristics: Semi Primitive Non-Motorized (SPNM) Recreation. As noted above, 20% of the project area is classified as *SPNM*. *SPNM* areas allows vegetation alterations to very small units in size and number, widely dispersed and not evident, while at the other end of the spectrum *Roaded Modified* is similar to *Roaded Natural* except heavily modified with roads and recreation facilities.

Roadless Area Characteristics include: 1) High quality or undisturbed soil, water, and air. 2) Sources of public drinking water. 3) Diversity of plant and animal communities. 4) Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land. 5) Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation. 6) Reference landscapes. 7) Naturally appearing landscapes with high quality scenic quality. 8) Traditional cultural properties and sacred sites. 9) Other locally identified unique characteristics. Twenty-five inventoried roadless areas can be found in the proposed project area encompassing 230,215 acres.

Developed Recreation

There are 26 developed campgrounds, 8 day use areas in the Analysis Area offering visitors 455 and 58 sites respectively from which to choose. Seven rental cabins and lookouts are available for public use. Most campgrounds have potable water, trash and toilet facilities, with other basic camping amenities.

Dispersed Recreation

Dispersed camping, hunting, fishing, and OHV use are very popular activities in the Analysis Area with many established dispersed sites. While 42,785 acres of the Analysis Area are designated and managed for summer motorized uses, there are approximately 2192 miles of National Forest System Roads (NFSR) open to motorized travel in the area. This extensive network of roads provides users with a tremendous variety of options to access and view the Forest. Other forms of dispersed recreation, including hiking, biking, horseback riding, snowmobiling, snowshoeing, and picnicking are also popular, though typically not to the extent of these others. The popularity of snowmobiling on the Forest is worth noting, with the Snowy Range the most heavily used snowmobile area in the Analysis Area.

Wilderness

Four wilderness areas are located in the Analysis Area, Encampment River (10,207 acres), Huston Park (30,917 acres), Platte River (23,273), and Savage Run (15,277).

Trails

There are approximately 431 miles of designated trails in the LaVA Analysis Area with 74 miles of those being motorized trails. There are also 469 miles of groomed and ungroomed winter motorized trails (snowmobile) that are mainly located on existing roads. Approximately 46 miles of cross-country ski trails are available in the proposed project area. There are 72 trailheads located in the Analysis Area.

There are 43 miles of the Continental Divide National Scenic Trail which runs the entire length of the Brush Creek/Hayden District from the Colorado/Wyoming state line to the north Forest boundary on the west side of the Analysis Area. When the CDNST corridor was being established and management direction delineated to extent possible it was to be located in more primitive ROS classes. Once located the management of the management area was to provide for a primitive and semi-primitive non-motorized experiences to the extent practicable.

Roads

Roads are classified as levels 1-5 with level 1 being a road closed to motorized travel and a level 5 road is open for public use passible by passenger cars. All open roads in the analysis area are designated for off-road vehicle travel and are enrolled as State designated roads/routes.

As mentioned there are approximately 2192 miles of open roads in the analysis area. The existing road system of both open and closed roads, along with proposed new temporary road construction (up to 600 miles) would provide access for vegetation treatments. No new permanent road construction is anticipated, and no temporary or permanent roads would be located in inventoried roadless areas.

All temporary road construction and reconstruction required for access to treatment areas would use minimum ground-disturbing standards. These standards would follow site-specific resource best management practices included in timber sale contract provisions. After project completion, temporary roads would be reclaimed within 3 years after treatments are completed through a variety of treatments to best repair the resources damaged.

Off-Road Vehicles (ORVs)

The term off-road vehicle (ORV) includes off-highway motorcycles, and four-wheeled all-terrain vehicles also known as ATVs or “quads”. The definitions of all-terrain vehicles (ATV), off-road vehicle (ORV), and off-highway vehicles (OHV) are used synonymously in this report, with the main differences being vehicle width, weight and number of tires.

ORVs have become a significant part of the recreational landscape in the past 25 years and their growth in use is a nationwide phenomenon.

National Forests promote multi-use and most National Forest visitors use motor vehicles to access the National Forests, whether for recreational sightseeing; camping and hiking; hunting and fishing; commercial purposes such as logging, mining and grazing; administration of utilities and other land uses; outfitting and guiding; or the many other multiple uses of NFS lands.

For many visitors motor vehicles also represent an integral part of their recreational experience. People come to National Forests to ride on roads and trails in pickups trucks, ATV's, motorcycles, and a variety of other conveyances. Motor vehicles are a legitimate and appropriate way for people to enjoy their National Forests, in the right places, and with proper management.

Off Road Vehicles are defined in the Forest Plan (2003) and by the State of Wyoming as:

Type 1 is a recreational vehicle primarily designed for off-road use which is fifty (50) inches or less in width has an unladen weight of nine hundred (900) pounds or less and is designed to be ridden astride upon a seat or saddle and to travel on at least three (3) low pressure tires. The State definition differs slightly: has an unladen weight of one thousand one hundred (1,100) pounds or less.

Type 2 is any unlicensed motorcycle which has an unladen weight of six hundred (600) pounds or less and is designed to be ridden off road with the operator astride upon a seat or saddle and travel on two (2) tires.

Type 3 is any multi-wheeled motorized vehicle not required by law to be licensed and is designed for cross-country travel on or over land, sand, snow, ice or other natural terrain and which has an unladen weight of more than nine hundred (900) pounds.

These include vehicles 50 inches or less, motorcycles, and ORVs such as side-by-sides that are approximately 60 inches wide. Motorized trails do not allow use by full-size, “street-legal” cars and trucks, such as 4-wheel drive vehicles and pickups, regardless of their width.

ATVs (three-wheeled) were not introduced until 1970 and recreational off-road motorcycle use was in its infancy. Foulke et. al. (2008). The recreational vehicle industry introduced four-wheeled ATVs in the mid-1980s. Cordell (2006). ATV's are by far the predominant off-road vehicles in use today, accounting for some 88 percent of those in use.

In the last 10 years the utility type vehicle's (UTV's), side by sides, have changed from slower, wider, more bulky work related vehicles to narrower, faster, more powerful recreation related vehicles.

ORV use (mainly the single passenger four-wheelers) have been overtaken in popularity by the multi-passenger UTV's, with the majority of ORV users preferring the experiences associated with backcountry trail travel, as opposed to those gained from road-based recreation (Cordell, Betz, Green, and Owens 2005, Fisher, Blahna, and Bahr 2001, Crimmins, Nelson 1990).

It is predicted that ORV recreation days will continue to grow by as much as 54 percent in the Rocky Mountain region by the year 2050 (Silberman and Andereck, 2006). The combination of an affluent, aging population and low interest rates may be fueling the growth in OHV purchases and use.

These trends in ORV use combined with the pre-2000 Forest travel management policy permitting cross-country travel, along with limited miles of designated motorized trails, and ORV user preferences for backcountry experiences have been in large part responsible for the current situation in which the Forest finds itself. Many miles of unauthorized, unmaintained "roads", and trails and repeated instances of off-road/off-trail resource damage to vegetation, water, and soil resources.

The Forest Service recognizes motorized use on National Forests as a legitimate form of recreation under certain conditions; however, unmanaged recreation especially as it pertains to Off-Highway Vehicles (OHV) has been determined by the Chief as one of the four major threats facing the National Forest system.

ORV use has been shown to typically be associated with some other recreational activity or primary purpose. ORV riding reported by Wyoming residents was likely to be done in combination with other recreational activities. Overall, more than three-quarters of respondents (77%) engaged in camping, and around two-thirds in fishing (72%), and/or hunting (66%) while ORV riding. In the 2005 survey resident respondents indicated only 67% of residents indicated camping, 57% fishing, and 63% hunting in conjunction with a recreational ORV riding trip (Foulke et al. 2006, 13).

A 2013 report for Wyoming Trails Program indicated ORV riding at 40%, hunting at 35% and camping at 14%.

Unauthorized Roads and Trails

There are many miles of illegal user created trails in the Analysis Area and many of them are wide enough to be accessed by ORV's, UTV's, and full-sized vehicles.

As stated above there are many miles of unauthorized routes in the Analysis Area and while it is difficult to determine the origin of the many miles of unauthorized roads and trails, many were likely developed from Forest users retrieving game, accessing hunting, fishing, camping, and gathering wood. Some

routes were likely skid trails from past timber sale operations that did not get closed on the ground while others are extensions of authorized roads by OHV or old routes left over from roads created when cross country travel was legal.

The Medicine Bow National Forest had 10.3% of all resident ORV use and 22.3% of the non-resident use during the 2012 season. (Wyoming Comprehensive Off-road Vehicle Recreation Report 2012.)

Recreation User Conflicts

Typical conflicts in the Analysis Area are dispersed campers overstaying their 16 day camping limit, motorized vehicles accessing areas via an illegal route, access around closures or signage, and retrieving game, firewood, etc. past the legal 300 foot distance off a legal route.

Both anecdotal and scientific evidence (Hammit and Schneider 2000) suggests that hunters in particular (many of whom are also ORV users) are increasingly finding their experiences and success rates adversely impacted by the number and behavior of ORV users. This can be experienced annually if you spend any amount of time hunting. From just the sound of a far off ORV traveling legally on a road moving your game to cross-country travel of an ORV illegally into your non-roaded area that you hiked into.

Complaints from both sides of the issue are commonplace, with ORV users often upset at the imbalance between non-motorized and motorized trail opportunities, and other users (including some motorized enthusiasts) upset at the ongoing examples of ORV-caused resource degradation. Far more prevalent, however, is the occurrence of ORV use disrupting other forms of recreation.

OHV-Caused Resource Damage

An easily discernible difference on impacts from motorcycles, single passenger three-wheelers, single passenger four-wheelers, and multi passenger four-wheelers has yet to be documented very well in the existing literature. The main difference, depending on terrain and environmental conditions, that would be seen if only one type of off-road vehicle was used along a certain route would be the amount of the vegetation removed and tread width development from repeated use. Besides the created difference in trail width many of the impacts would be similar with all off-road vehicles.

A degree of resource damage can occur with all activities that are managed on the Forest under certain conditions. To mitigate resource damage to the best of their ability the Forest Service has designated areas for most activities, including motorized and non-motorized activities that have been designed with resource concerns and potential damage in mind when the areas are developed. Trails, roadways, campgrounds, nearly all Forest Service developments have had some type of environmental effects analysis prior to being created.

Stokowski and LaPointe 2000 summarized multiple research assessments regarding ORV damage and their findings are listed below:

Regardless of vehicle type (ATVs, ORVs, snowmobiles), research generally shows very similar impacts; differences in impact level are due more to intensity of use or use characteristics, in combination with the level of fragility of the affected environment.

Studies of air quality impacts are limited, and often focus on the emission effects of snowmobile operation. Findings show that emissions tend to exceed human health standards. Further research about the effects of ATV emissions on humans and other species, and for general air quality, is needed.

Soil and vegetation impacts are widely discussed in the literature, and obvious to even casual observers. Soil compaction and the shear forces of motorized vehicles create mud holes and gullies that alter hydrologic patterns and intensify erosion. More studies are needed to quantify the amount and extent of soil loss attributable to ATV use.

Trail erosion and compaction caused by off-road and all-terrain vehicles reduce the quality of recreational trails and require enhanced management action to develop and maintain safe, usable trails.

Wildlife impacts have been primarily studied in relation to Western habitats and have often focused on snowmobile use. Wildlife are negatively impacted by the presence and noise of ATVs, ORVs, and snowmobiles, although some mammals (deer, for example) may become, over time, habituated to these vehicles. Snow compaction also affects the survival and activities of small mammals.

ATV use has been found to widen and rut forest roads, and to increase the sediment load to streams which may threaten fisheries. ATVs and ORVs offer access to resource areas that are typically less accessible and more remote.

SUMMARY

This report discusses the effects of a proposed landscape scale vegetation treatments upon the recreation resources located throughout the Forest on the Snowy Range and Sierra Madre mountain ranges on the Brush Creek/Hayden (BCH) and Laramie Ranger Districts of the Medicine Bow National Forest. It also discusses the effects of the No Action alternative. This proposed project would authorize vegetation management activities for the next 10-15 years and could authorize up to 95,000 acres of stand initiating or even-aged forest management methods, up to 165,000 acres of uneven-aged or intermediate forest management methods and up to 100,000 acres of other vegetation treatments such as prescribed fire, mastication and hand-thinning in forested and non-forested areas.

The different treatments proposed would all have different effects to the recreating public depending on what experience they are seeking. The effects to the different recreation features available would also vary by treatment. Mechanized treatments would likely have the most negative effect on visitors due to an increase in access, noise, congestion and disturbed areas. The prescribed fire and hand treatments provide for fewer negative impacts, but some areas would be negatively impacted by indirect effects (smoke and chainsaw noise) of these treatments.

Most impacts from the proposed project would be short lived compared to the ongoing, 15 plus years of bark beetle mortality that is still causing negative impacts to many recreation opportunities and available recreation features, (e.g., closed campgrounds, trails, and roads). Dispersed recreation opportunities have been negatively impacted from the effects of the bark beetle epidemic causing stands to fall apart, trails to become inaccessible or unpassable, and overhead hazards in almost all parts of the Forest. Hunting, fishing, hiking, biking and nearly all other activities in the woods there is always a presence of overhead danger above you along with downfall or jackstrawed trees that you have to crawl or climb through to get to some of your favorite recreation spots or activates is now the norm. Accessibility for some dispersed recreation opportunities has been negatively affected by the existing condition with the beetle kill mortality. Dispersed recreation access could be improved with some of the proposed vegetation treatments, especially for hunters.

This proposed project has potential to affect some National Forest system trails, trailheads, roadless areas, campgrounds, picnic areas along with dispersed recreation activities of hunting, fishing, hiking, biking, sightseeing, boating, camping, sledding, snow shoeing, cross-country skiing, snowmobiling and many other opportunities. These same activates have been negatively impacted for the last 15 years due to the bark beetle mortality that affected nearly all of the proposed project area. Proposed treatments would provide an opportunity to improve on some of the existing conditions and improve on public safety, recreation opportunities, access, and experiences.

The Forest Service is a multiple use agency where renewable resources are managed through conservation while some federal agencies manage for the preservation of resources. The proposed vegetation treatments greatest effect would be temporary displacement of recreating individuals from areas where treatments were occurring to areas without ongoing treatments. As has been observed in recent years the recreation use on the Forest overall continues to increase, we have seen roadside hazard tree clearing along both scenic byways (Wyoming State Highways 130 and 70) in the project area

along with multiple timber harvesting activities and the visitation and use on the Forest continues to increase. The Snowy Range Scenic Byway has seen dramatic increases in use in the last five years and there is hardly a day during the summer season when the parking lots along the Snowy Range Scenic Byway are not full of visitors recreating. Winter snowmobiling is also increasing with winter parking lots full during the snow season with resident and non-resident snowmobilers. ORV use in the form of UTV's has boomed in recent years with increases in nearly all areas of the Forest.

The ROS settings may be impacted with the modified proposed action, but not to the extent that any settings would change.

A key characteristic of inventoried roadless areas is their ability to supply P (Primitive), SPNM (Semi-primitive Non-Motorized), and SPM (Semi-Primitive Motorized) settings for a wide range of dispersed recreation activities. Inventoried roadless areas do exist adjacent to or nearby Wilderness Areas and serve as a transition between Wilderness and developed or road based activities.

Inventoried roadless areas have mechanical, prescribed fire and hand treatments proposed to protect habitat, infrastructure, and boundaries. Most all of the inventoried roadless areas in the LaVA project area are small in size with Sheep Mountain and Snowy Range being the two largest. Most have roads around their perimeters with the exception of Sheep Mountain and most are less than three miles across from a road on one side to a road on the other. Over half of the twenty-five roadless areas in the project area have developed foot/horse trails located in them.

The existing condition of much of the inventoried roadless areas due to their small size has created degraded opportunities for solitude with the sounds that occur adjacent to roadless areas by a variety of human activities outside of roadless areas. Similar degraded opportunities for solitude would occur with the sounds that would occur with the proposed vegetation treatments.

No treatments would occur in wilderness so no effect to the primitive characteristic would occur. Mechanical treatments may negatively affect some indicators for roadless characteristics along the perimeters of some roadless areas in the semi-primitive non-motorized and semi-primitive motorized areas. Access, remoteness, and naturalness indicators would be negatively affected along the perimeters of roadless areas with some vegetation treatments.

With no temporary or permanent road construction in roadless areas proposed with the modified proposed action minor shifts in recreation use might occur because of the vegetation treatments, but these shifts would have little to no effect on overall supply or availability of inventoried roadless areas maintained for P, SPNM, and SPM recreation opportunities.

Prescribed fire and hand treatments could have negative impacts to some forest users but not to others. These vegetation treatments would have minimal impacts on the semi-primitive motorized character as indicator conditions fall within the normal or are within management area direction where inconsistent.

Availability of roadless areas for forest visitors seeking Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized recreation opportunities would not be affected by the modified proposed action.

The LaVA project would likely negatively affect the recreation experience for some forest visitors in localized treatment areas as that experience has affected recreationists previously during timber sales and prescribed burning activities in the past mainly in the localized areas where treatments are occurring. Displacement from a certain location would be the main negative effect to the public along with disturbance, but the effects would be short-term and no significant negative impacts are anticipated to recreation resources.

REGULATORY FRAMEWORK

Forest Plan Direction

Revised Land and Resource Management Plan for the Medicine Bow National Forest (USDA Forest Service December 2003)

Sources of information for this analysis included consulting the 2003 Revised Forest Land and Management Plan goals, objectives, strategies, standards and guidelines; 2009 Continental Divide National Scenic Trail Comprehensive Plan, GIS geospatial datasets, National Visitor Use Monitoring data, and internet searches for relevant literature.

Forest Wide Direction

Dispersed Recreation

Guidelines

1. Manage resource management activities to be compatible with recreation opportunities. Minimize impact to other resources.

Scenery Management

Standards

1. Meet the scenic integrity objective of Moderate within the foreground for all National Scenic and Recreation Trails.

Recreation Opportunity Spectrum

Standards

1. Conduct management activities to comply with the requirements of the adopted ROS class and the scenic integrity objective in the management area prescription.

Disturbance Process

Guidelines

1. When feasible and appropriate, use prescribed fire throughout the landscape, including wilderness areas, special interest areas, research natural areas, and inventoried roadless areas to accomplish resource management goals and objectives.

Insect and Disease

Standards

1. Manage vegetation in high-use recreation areas to provide for public safety, to improve forest health, and to maintain or improve the desired recreation setting(s).

Continental Divide National Scenic Trail Comprehensive Plan

Policy

1. Use the Recreation Opportunity Spectrum system in delineating and integrating recreation opportunities in managing the CDNST.
2. Manage the CDNST to provide high-quality scenic, primitive hiking and pack and saddle stock opportunities. Backpacking, nature walking, day hiking, horseback riding, nature photography, mountain climbing, cross-country skiing, and snowshoeing are compatible with the nature and purposes of the CDNST.

ANALYSIS METHODOLOGY

The NVUM (National Visitor Use Monitoring) is completed every 5 years (ongoing October 2017/2018) and was last completed in 2013 providing a forest-wide view of how forest visitors are recreating. For the Analysis Area, field-observations, professional judgment and observations, ROS management prescriptions, Forest Plan direction, technical reports relating to ORV use, and NVUM data can be used to glean recreational use in the Analysis Area, but the consequences of the alternatives on recreation opportunities and experiences may be hard to predict with much certainty, without substantial quantitative analysis.

ENVIRONMENTAL CONSEQUENCES

Project Design Features

The design criteria listed below would provide for reduced negative impacts to the recreation resource if implemented during treatments.

1. Remove operational slash and merchantable materials from the developed recreation site that are a direct result of logging the site. Protect healthy new growth during all phases of removal operations.
2. Coordinate treatment timing with recreation staff if vegetation treatments are planned on OHV or snowmobile trails to minimize conflicts. Trails will be returned to pre-existing conditions.
3. Temporary road and/or trail crossings across designated forest trails will be kept to a minimum. Any crossings will be perpendicular to designated forest trails.
4. Minimize overlaying skid trails/haul routes on non-motorized system trails. Repair trail prisms to their original condition at any crossings or along trail if used for skidding. Trail width should not be increased.
5. To the maximum extent possible, alternate route(s) or detours will be used during project implementation to allow continued use of the Continental Divide National Scenic trail and to mitigate scenery management impacts during vegetation management operations.
6. Design and implementation of timber treatment or associated activities (e.g. access routes, staging, etc.) within MA 8.22 Ski Based Resorts – Existing/potential must be approved by the Forest Service ski area permit administrator to ensure compatibility with current and potential recreational opportunities.
7. No skidding on Continental Divide National Scenic Trail.
8. If possible set up skid trails and landings so that they are hidden from view when on trails.
9. Mark trails with post and/or placard prior to harvest activities and protect from damage during implementation.
10. Where possible during harvest shear above any trail symbols to keep route marked and reduce marking needs.
11. If trails are temporarily closed due to vegetation treatments, trail will be cleared of all slash prior to re-opening.
12. When activities are occurring along open trails, slash will be treated within 100' of the corridor within specified time frames (check with recreation specialist).
13. Warning signs will be placed on all trail access points and along the trail where activities are occurring.

Affected Environment

The LaVA Opportunity Areas are located in both Carbon and Albany Counties in the Sierra Madre and Snowy Range mountains, on the Medicine Bow National Forest, Brush Creek/Hayden and Laramie Ranger Districts. The legal description is T12-19N R77-88W. The analysis area encompasses the entire Forest excluding the Pole Mountain area. The analysis area encompasses approximately 894,472 acres with approximately 615,230 acres in opportunity areas or areas where potential treatments may occur. Potential treatments include 95,000 acres of even aged management methods, 165,000 acres of uneven aged management methods, and up to 100,000 acres of treatments with prescribed fire, mastication, and hand thinning.

The LaVA project is divided into 14 accounting units where opportunities for treatment are proposed. Five accounting units are located in the Sierra Madre mountain range and 9 accounting units are located in the Snowy Range mountain range.

There are approximately 413,882 acres in management areas 5.13 (Forest Products, 132,046 acres) and 5.15 (Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability, 281,836 acres) that provide to the allowable sale quantity (ASQ) for the Forest. Elevation ranges from approximately 7,000 feet to just over 12,000 feet at Medicine Bow Peak. Approximately 149,218 acres (64%) of twenty-five Inventoried Roadless Areas have proposed vegetation treatment opportunities. Approximately 43 miles of the Continental Divide National Scenic Trail is located in proposed opportunity areas in the Sierra Madre mountains on the west side of the project area.

No Action Alternative

Direct and Indirect Effects

There may be short-term or lasting adverse impacts to Forest visitors to developed recreation, dispersed recreation, wilderness, and inventoried Roadless areas as a result of implementing a no action alternative due to the overhead hazards remaining from the beetle killed standing and falling trees. No vegetation treatments may negatively impact safety and accessibility for dispersed recreation and diminish some recreation opportunities.

The Recreation Opportunity Spectrum (ROS)

The no action alternative would have no effect on five of the seven indicators for the recreation opportunity spectrum. In areas with high beetle mortality access and naturalness indicators for semi-primitive non-motorized and semi-primitive motorized settings may be negatively impacted by downed and falling trees preventing safe access to many areas. This visual quality in high beetle mortality areas would be perceived by some of the public as a negative impact to visual qualities.

Developed Recreation

Under the no action alternative no vegetation treatments would occur near or around campgrounds, picnic areas, or Forest Service rentals. New hazard trees at developed recreation sites would be prioritized and treated per Forest Service requirements. The no action alternative could negatively impact a few campgrounds that have been closed due to beetle killed hazard trees that would not have an opportunity to be treated with the proposed project.

Dispersed Recreation

No potential vegetation treatments would occur in dispersed recreation areas so camping spots would still have hazard trees in many areas of the forest that would not be treated. Hunters, fisherman, hikers, bikers, sightseers, ORVer's, all dispersed recreationists would continue to have to struggle with overhead hazard safety concerns and downed and jackstrawed trees impeding access in some areas.

Hunter satisfaction is directly tied to hunter success rates and Wyoming Game & Fish Hunter Satisfaction Surveys by game species indicated a 50 to 80% satisfaction depending on the species (2013 & 2014 Big and Trophy Game and Wild Bison Harvest Surveys). The no action alternative would have minimal or no impact to hunter satisfaction. The no action alternative would continue to affect accessibility of some dispersed recreationists due to lodgepole pine stands that are falling apart with dead and down materials accumulating to the point that some areas are not accessible. By doing nothing trees will continue to fall and accumulate in most lodgepole pine stands and these areas would become more inaccessible.

Trails

No new motorized or foot trails would be developed. With the no action alternative no vegetation treatments would occur and no trees would be removed along or near the Continental Divide National Scenic Trail or any other National Forest System Trails. Trail users would still have to navigate some areas of heavy downed trees along many of the trails located in lodgepole pine timbered stands due to the dead and falling beetle killed trees.

Annual trail maintenance would continue to treat portions of the trails one time during the season, and tree fall would continue after that clearing. In some years trail navigation would be very tedious for hikers along many timbered stretches and riders and hikers would have a difficult time navigating some portions of trails with the continuing down fall accumulation.

Hikers and horseback riders would continue to have to navigate along the trails with tangles of increasing down fall resulting from the 15 plus year old bark beetle mortality. Mortality in the lodgepole pine along many trails average 80 to 90 percent and wind events along with moist spring conditions continually cause the trails to be littered with additional down fall that are too jackstrawed for travelers to pick their way through.

There would continue to be both short and long-term negative impacts for trail system users as some trails may be closed due to overhead hazards or the lack of maintenance on them. The scenic attractiveness and scenic quality integrity along many trails would remain low until a regenerated green

forest develops. Scenic integrity improvement could take from approximately 7 to 30 years (mid-term) for lodgepole pine to regenerate and that would be trees from approximately 3 to 20 foot minimum heights in the mid-term.

Inventoried Roadless Area Characteristic

No vegetation treatments would occur in inventoried Roadless areas so no negative impacts to nearly all of the Roadless area characteristics would occur. Naturally appearing landscapes with high quality scenery is one of the characteristics that may continue to be negatively impacted by the high percentage of dead beetle killed lodgepole pine trees in some areas. A continuous stand of dead lodgepole pine trees is not considered to have high scenic qualities as has been commented on by many forest visitors. Due to the small size of most of the inventoried roadless areas and roads around nearly all perimeters the opportunities for solitude may be diminished by a variety of human activities in close proximity to roadless area boundaries that would be similar to proposed treatment sounds.

Wilderness

The no action alternative would have no negative impacts on wilderness areas and they would continue to be affected by natural occurring events.

Roads

Under the no action alternative all roads currently open to motorized travel would remain open, all closed roads would remain closed, and all unauthorized routes would remain illegal for motorized use. No temporary roads would be constructed for potential vegetation treatments. Access for hunting, fishing, dispersed camping, and other recreational activities would remain the same in the area. Falling beetle killed trees would continue to block many routes affecting travel along certain roads that have not had hazard trees removed. No new temporary roads would be created and no negative impacts would occur.

Off-Road Vehicles (ORVs)

ORV user compliance with travel management regulations restricting travel to designated open roads and trails is expected to remain at current levels. Continued expansion of the existing unauthorized route systems would likely continue with the no action alternative along with the associated negative impacts.

Unauthorized Roads and Trails

User created roads and trails are likely to continue due to game retrieval, firewood gathering, or a number of other uses where access is limited to foot. The no action alternative would not address any user created routes.

Recreation User Conflicts

Conflicts between recreation users would not be affected by the no action alternative, it is anticipated that conflicts between certain user groups would continue and remain the same.

OHV-Caused Resource Damage

The no action alternative would have no effect on the amount of resource damage that is occurring. Resource damage from ORV use would continue.

Cumulative Effects

Developed recreation would likely not see any significant difference with the no action alternative, hazard trees in developed areas would be addressed annually. In dispersed recreation areas hazard trees would remain and it would be up to the public to be aware of the hazards in the forest and to address them if they wanted to use a dispersed camp site. Access to some areas would continue to be negatively impacted with dead trees falling.

Wilderness and Roadless areas would continue to have beetle killed trees falling during windy times or when soil moisture was high. Natural weather and environmental conditions would determine how Forest timber conditions were maintained.

The Continental Divide National Scenic Trail and National Forest System trails would continue to have tangled downfall occurring annually along the trail in lodgepole pine timbered areas with beetle killed trees. Annual maintenance along the trails does not keep up with the increasing numbers of trees on the trails. Annual trail maintenance occurs but on fewer miles due to the increasing number of trees on the trails. No treatments would allow overhead hazards and downed logs to remain along and adjacent to the trails with annual maintenance occurring as funding allowed with at most a once a year clearing of fewer and fewer trails as the backlog of downed trees increases.

No roads or user created routes would be closed if this alternative is selected and impacts from user created routes would continue to accumulate over time with continued and increased use in many areas that may occur. Resource damage in some areas would continue to increase as use increases.

The popularity of ORV/UTV use in National Forests is likely to continue to increase well into the foreseeable future. Therefore, it may be reasonably anticipated that additional ORV users would likely seek out even more opportunities for off-road recreation, further intensifying areas that are already significantly impacted. The no action alternative would have minimal impact on ORV users.

Under the no action alternative braiding along with soil and water resource damage on designated routes and user created routes would continue to occur and the negative impacts would continue to be added to already numerous areas that have been negatively impacted by increased unwanted ORV/UTV use.

Modified Proposed Action _____

The modified proposed action for the Landscape Vegetation Analysis (LaVA) project is to conduct vegetation management activities to protect, restore and enhance forest ecosystem components; reduce wildfire risk to communities and municipal water supplies; supply forest products to local industries; and improve, protect, and restore wildlife habitat. Up to 360,000 potential acres of treatment would occur

over a 10 year period if the modified proposed action is implemented. Potential treatments include 95,000 acres of even aged management methods, 165,000 acres of uneven aged management methods, and up to 100,000 acres of treatments with prescribed fire, mastication, and hand thinning.

Treatments include tree cutting which could include clearcutting, group or individual tree selection, salvage, mastication, sanitation and thinning. Prescribed fire could include jackpot, pile, or broadcast burning while maintenance burns could occur on previously treated areas to maintain desired fuels or habitat. Hand treatments would occur in riparian and other more sensitive areas and in areas where Forest Plan direction requires lessened impacts.

Direct and Indirect Effects

Recreation Opportunity Spectrum (ROS)

ROS is based on the premise that people expect certain levels of development related to the character of the setting and the type of recreation they prefer. The Recreation Opportunity Spectrum (ROS) provides a way to describe the variations in the degree of isolation from the sounds and influences of people, and the amount of recreation visitor use. ROS can be considered to be habitat for the recreating public.

The end product of recreation management is the experience people have. The key to providing most experience opportunities is the setting and how it is managed. As a land manager, you can facilitate (or hamper) many desired experiences by the way you manage such "setting indicators" as access, remoteness, naturalness, facilities, social encounters, visitor impacts, and the visitors themselves.

- Access includes type and mode of travel. Highly developed access generally reduces the opportunities for solitude, risk, and challenge.
- Remoteness refers to the extent to which individuals perceive themselves removed from the sights and sounds of human activity.
- Naturalness refers to the degree of naturalness of the setting; it affects psychological outcomes associated with enjoying nature, this indicator is portrayed by using a compatible visual quality objective (VQO) for each setting.
- Facilities and Site Management refers to the level of site development.
- Social Encounters refers to the number and type of other recreationists met along travel ways, or camped within sight or sound of others.
- Visitor Impacts refers to the impacts of visitor use on the environment.
- Visitor Management includes the degree to which visitors are regulated and controlled as well as the level of information and services provided for visitor enjoyment.

Five of the seven ROS settings occur in the LaVA project area, 31% of the area is roaded modified, 23% is semi-primitive motorized, 22% is roaded natural, 20% in semi-primitive non-motorized (172,291 acres), and 3% is in rural. Of the semi-primitive non-motorized ROS class 52% (79,591 acres) is located in wilderness areas. All accounting units have semi-primitive non-motorized, semi-primitive motorized, roaded natural and roaded modified ROS classes with varying percentages. Four accounting units have rural class ROS settings in the area which are located along Wyoming Highway 130 corridor that runs east to west in the center part of the Analysis Area and along Wyoming Highway 230 that is located in the southeast part of the area.

In Semi primitive non-motorized settings vegetation is predominately natural, treatment areas exist to enhance forest health but are few and widely dispersed. High probability of solitude, closeness to nature, self-reliance high to moderate challenge and risk; and lower probability of encountering other users. Motorized use is generally not permitted.

In semi-primitive motorized settings treatment areas are very small in number, widely disbursed, and consistent with natural patterns. Moderate probability of solitude, closeness to nature, high degree of challenge and risk using motorized equipment; and a low concentration of users. Motorized use is permitted.

In roaded natural/roaded modified settings treatments to natural vegetation patterns are evident but in harmony with natural setting. Moderate evidence of human sights and sounds; moderate concentration of users at campsites; little challenge and risk. Motorized use is permitted.

Rural areas have dominate treatments that blend with landscape. High interaction among users is common. Little challenge or risk associated with being outdoors.

A matrix in the ROS field guide can be used to assist with determining how activities may affect the ROS classes and setting indicators. The effects from activities range from fully compatible, normal, inconsistent, to unacceptable, with inconsistent representing conditions that are not generally compatible with the norm, but may be necessary under some circumstances to meet management objectives (ROS Primer and Field Guide, April 1990). If effects to indicators are inconsistent and of low to moderate intensity and extent then class settings remain acceptable.

All but approximately 3,000 acres of the semi-primitive non-motorized ROS setting areas are located in wilderness or inventoried roadless areas. Of these approximately 2,000 acres in eight accounting units are in potential mechanical or prescribed fire treatment opportunity areas.

These settings could be negatively affected if mechanical treatments occurred and would have inconsistent conditions while the effects of prescribed burning or hand treatments would be determined as normal or inconsistent.

Access, remoteness, and naturalness are the setting indicators that could be negatively affected by mechanical treatments in semi-primitive non-motorized settings with an inconsistent condition in some management areas, but the effects from prescribed burning or hand treatments would be normal or inconsistent. The effects to ROS indicators for the proposed vegetation treatments would be of low to moderate intensity and extent and would not cause a change to ROS settings.

Of the proposed vegetation treatments, mechanical treatments in semi-primitive non-motorized ROS settings would be inconsistent in some areas. Mechanical treatments in these ROS areas may move the access, remoteness, or naturalness indicators into an inconsistent range, but not to an unacceptable condition. The naturalness indicator may be less affected in areas with high beetle kill mortality as visual quality characteristics in those areas would likely already be considered diminished.

Hand treatments or prescribed fire would move the same indicators less and would be in the normal or an inconsistent condition that may be necessary to meet management objectives. In semi-primitive motorized ROS areas mechanical treatments would be inconsistent in some areas but be normal in a majority of the areas, design criteria developed would meet management objectives in areas that were considered inconsistent. Rural, Roaded Modified, and Roaded Natural ROS areas that allow for more moderate visual qualities would have minimal negative impacts to these three indicators. Treatments in these setting would fall into normal conditions.

Negative impacts from mechanical treatments would be diminished visual quality characteristics, loss of solitude and naturalness of an area. None of the negative impacts to the ROS settings would be of such intensity or extent that they would create a change in class. Design criteria have been developed to mitigate negative impacts to recreation resources depending on the specific treatment area.

Inventoried Roadless Areas

One of the nine characteristics of roadless areas is: *Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation*. Roadless areas often provide outstanding dispersed recreation opportunities such as hiking, camping, picnicking, wildlife viewing, hunting, fishing, cross-country skiing, and canoeing. Inventoried roadless areas exist adjacent to or nearby Wilderness Areas and serve as a transition between Wilderness and developed or road based activities.

While they may have many Wilderness-like attributes, unlike Wilderness the use of mountain bikes, and other mechanized means of travel is often allowed. These areas can also take pressure off heavily used wilderness areas by providing solitude and quiet, and dispersed recreation opportunities.

While hunting and fishing can occur in areas managed for the more developed end of the ROS class spectrum, roadless areas typically provide a semi-primitive setting, which is important to many hunters and fisherman.

Twenty-five inventoried roadless areas can be found in the LaVA project area and each accounting unit has portions of inventoried roadless areas located within the units. Approximately 124,287 acres of inventoried roadless areas have potential treatment opportunities proposed, 64% of the proposed treatments would be mechanical or prescribed fire and 34% of the treatments opportunities would be prescribed fire or hand treatments. The majority of roadless areas in the project area are in the same geographical setting as the semi-primitive motorized ROS setting. The semi-primitive non-motorized areas that are not located in wilderness or roadless areas are associated with crucial big game winter range, special interest areas, infrastructure, special habitat areas, or management areas where minimal vegetation treatments are allowed.

No permanent or temporary roads would be constructed in inventoried roadless areas for the proposed vegetation treatments, but the treatments may cause negative impacts to some visitors depending on the recreational experience they are trying to achieve.

Approximately 46% of the semi-primitive non-motorized setting is located in wilderness areas and no vegetation treatments are proposed in wilderness areas so no negative impacts are anticipated to the primitive area characteristics. If prescribed fire is used upwind of wilderness areas individuals could be negatively affected by smoke, the negative effects would be short in duration and the direct impact would be displacement of recreationist out of the area during the treatments.

Mechanical, prescribed fire, and hand treatments are proposed in roadless areas in close proximity to wilderness areas where the opportunity for solitude (primitive characteristic) may be negatively affected for some recreationist. Because most of the inventoried roadless areas are small in size and surrounded by roads, the potential negative effect from proposed treatments would be similar to the negative effects from existing human activities near roadless areas and the effects on access and remoteness indicators would be similar to human activities (wood cutting and ORV use along adjacent roads) that already occur adjacent to roadless areas.

Approximately 40% of the semi-primitive non-motorized setting is also located in inventoried roadless areas where no permanent or temporary roads would be constructed. Access for vegetation treatments would be limited to along the boundaries of roadless areas or off existing roads, minor shifts in recreation use might occur because of the vegetation treatments, but availability of roadless areas for forest visitors seeking primitive, semi-primitive non-motorized, and semi-primitive motorized recreation opportunities would not be significantly impacted by the proposed project.

Semi-primitive motorized areas also have mechanical, prescribed fire, or hand treatments prescribed throughout the project area. Treatments in this setting are less likely to cause negative impacts to access, naturalness, and remoteness indicators because motorized use in adjacent areas is evident and ongoing. Impacts to semi-primitive motorized areas would fall in the normal and inconsistent condition range with inconsistent indicators meeting management area objectives and direction.

Access would be limited by terrain for mechanical treatments and would likely keep impacts within 1000 feet of boundaries as that would be the maximum treatable distance with no temporary road access. In these areas mechanical treatments would negatively affect some of the primitive and semi-primitive non-motorized characteristics as mechanical treatments could negatively impact the access, naturalness or remoteness indicators for some forest visitors. Impacts would be limited in extent and intensity and would be of short duration so they would not diminish semi-primitive characteristics.

Projected vegetation treatments over the next 10 years may change the natural appearance of some areas for a period of time until the area regenerates, the treatments would also disperse recreationist to other areas of the forest that are not being treated. Dispersed recreation opportunities would not change as a result of the proposed vegetation treatments, but the location available for some opportunities would and the feeling of remoteness and solitude may also change for a period of time. Based on the small percentage of roadless area that would be affected over 10 years and the overall supply or availability of inventoried roadless areas maintained dispersed recreationists would be able to enjoy primitive, and semi-primitive characteristics with one or two indicator conditions being slightly diminished but not enough to effect the roadless area experience.

Developed Recreation

The majority of developed recreation sites in the LaVA project area are located along or near the Snowy Range Scenic Byway (Wyoming Highway 130) and the Battle Pass Scenic Byway (Wyoming Highway 70). Developed recreation sites are spread out throughout the project area with all accounting units having at least one developed recreation site except for the Big Blacktail accounting unit. Most of the developed recreation sites in the project area have already had hazard tree removal and would not be negatively affected by the proposed project. The few remaining sites in the project area that need hazard trees removed would not be negatively affected by the proposed vegetation treatments as these sites are presently closed or not accessible to the public. Treatment to these sites would allow for more sites to be accessed or re-opened, even though some closed sites may remain closed due to recreation site analysis that determined use was too low for continued operation.

Treatments in close proximity to developed recreation sites may displace some visitors to areas without treatments occurring, but would not negatively affect a majority of visitors as most want the dead trees treated in some way. Smoke from burning treatments would potentially negatively affect some visitors and displace them to other locations. Additional mechanical, prescribed fire and hand treatments would have little impact on these developed sites, but some of the public would negatively perceive tree cutting or burning in close proximity to these sites while others would see the remaining overhead hazards and dead down trees removed as a positive action.

Dispersed Recreation

Nationally, the top five activities pursued on NFS lands are viewing natural features, general relaxation, hiking, viewing wildlife, and driving for pleasure (2008 Roadless Area Conservation). The roadless areas in the project area often provide outstanding dispersed recreation opportunities, such as camping, canoeing, cross country skiing, fishing, hiking, hunting, picnicking, wildlife viewing and OHV trail use.

Dispersed activities like camping, hunting, fishing, picnicking, ORV use etc. would be negatively impacted in some locations for short periods of time when mechanical or prescribed fire vegetation treatments were occurring. The impact would be short term loss of access or displacement from a favorite spot. Hand treatments would typically not cause loss of access or for dispersed activities to be relocated.

Some forest visitors would be negatively affected by the way the disturbance looks or any inconvenience that the proposed treatments might cause, but as has been seen over time the visual effects from the disturbance soften over time and an increase in opportunities become available for the recreating public. Loss of people recreating overall is not likely to occur as in the last 10 years with roadside hazard tree removal, existing timber harvesting, cattle grazing, road construction, etc. use of the Forest has steadily increased with some of the heaviest use occurring along the Snowy Range Scenic byway.

The proposed vegetation treatments would not cause a loss of recreation opportunities over the long term and over the short term may cause loss of access or cause displacement from a favorite spot. Short term loss of opportunities in some areas may occur but there would be multiple areas on the Forest where similar opportunities would be available.

Some dispersed camp sites would be lost if the proposed vegetation treatments are implemented and some new sites would become available. Access to some sites may be improved and some access would be lost. Dispersed sites may be negatively affected over the short term due to loss of a site or loss of access during implementation but new potential sites would be created and some sites would be improved by potential removal of hazard trees in many areas where dispersed sites are located.

Hunter satisfaction is tied to hunter success rates for nearly all game species, and this is noticeably true for non-resident hunters. Wyoming Game and Fish Department Big and Trophy Game satisfaction surveys indicated non-resident hunters with a higher satisfaction rate than residents with 64 to 84% of non-resident hunters satisfied to very satisfied and 56 to 81% of residents satisfied to very satisfied, depending on the species (2013 & 2014 Big and Trophy Game and Wild Bison Harvest Surveys).

The modified proposed action would have minimal to no impact on hunter satisfaction. Accessibility to hunting areas may be negatively impacted in site specific areas for short periods of time, but an overall improvement to access would be realized over the long term with the proposed vegetation treatments. The proposed vegetation treatments may open access to many areas that are presently not accessible due to beetle killed trees jackstrawed in some areas, but short term loss of access to some areas is anticipated. Roads closed for administrative use provide access to many areas with typically smoother walking terrain, but still with beetle killed dead and down trees blocking the route. Closed roads in the Analysis Area provide an excellent way to access the Forest for hunting and many other dispersed recreation activities. The proposed vegetation treatments would use some existing roads and they would be cleared and allow for improved non-motorized access for the public.

Wilderness

Four wilderness areas are located in the project area, Platte River, Savage Run, Huston Park and Encampment River. Seven accounting units have designated wilderness areas located within their boundaries. No treatments are proposed in wilderness areas and no negative impacts to wilderness areas are anticipated. Prescribed fire opportunities on the southern end of the Huston Park wilderness on the west side of the Analysis Area could cause negative impacts from the smoke created that would likely move over the wilderness. Huston Park is a class II air shed and combined with smoke dispersal requirements no negative impacts would be anticipated. Savage Run wilderness has the only class I air shed in the Analysis Area and has two small proposed treatment areas where hand treatments or prescribed fire is proposed. Smoke mitigation or specific wind conditions would be needed if either of these proposed areas are burned.

Trails

Battle Pass, North Corner, Cedar Brush, and Fox Wood accounting units have cross country ski trails located within their boundaries with approximately 46 miles of cross country trails in the Analysis Area. Vegetation treatments in any of these areas would not negatively affect the cross country ski trails or opportunities. Mechanical treatments of hazard trees along the cross country ski trail routes would be a positive effect from proposed vegetation treatments that would reduce annual trail maintenance. Low visual quality of the existing beetle killed lodgepole pine would remain low over the short term until dead trees fall or are removed and regeneration becomes more pronounced.

All 14 accounting units have National Forest System trails or portions of trails traversing through them with approximately 357 miles of non-motorized and 74 miles of motorized trails in the Analysis Area. Overhead safety hazards are prevalent in the Analysis Area with an abundance of standing dead trees caused by the bark beetle epidemic always present and ready to fall under certain conditions.

Prescribed fire and hand treatments would have few negative effects on use on National Forest System trails with little anticipated effects occurring to the trail prisms. Negative impacts would be from trail closures due to smoke or overhead hazard clearing and short term effects to visitors that may be negatively impacted by temporary loss of their favorite trail during treatments. It is estimated that

nearly half of the trails in the project area would have portions that are not usable without clearing this spring (2018), as trail conditions are continuing to decline without any other maintenance but removal of dead and down logs, and this includes trails located in roadless areas that would not be affected by the proposed vegetation treatments. Mechanical treatments along trails could cause loss of access to specific trails during implementation and restoration, as closures or reroutes may be needed during some treatments.

Users would likely find other trails available during the closure of desired trails. Visual quality along the trails would be negatively impacted by the mechanical treatments but would meet Forest Plan standards when design criteria and management area standards and guidelines are implemented.

Treatments along most trails would reduce overhead safety hazards and the need for annual logging out. Trail tread, overhead clearing, and other trail maintenance needs that are not presently being addressed due to heavy downfall and a backlog of logging out needs would be possible if proposed vegetation treatment areas fall along trail corridors. The proposed treatments could greatly reduce the need for annual tree removal on some trails and reduce the backlog of trails that are continually blocked by down and jackstrawed trees.

Jack Savery, Green Hog, and Battle Pass accounting units have portions of the Continental Divide National Scenic Trail (CDT) located running north to south in the units. Treatments along the Continental Divide National Scenic Trail would negatively impact some hikers or horse riders with closures or detours and lowered visual quality from mechanical treatment activity. Treatments along or adjacent to the trail would displace hikers or horse riders to other trails on the Forest. Treatments along the trail may improve the hiking experience for most hikers who have had to crawl or climb through tangled deadfall and down trees, but some hikers and riders would be negatively impacted by the visual appearance after treatments for the short-term.

Many stands along trails that need the most treatment have 80 to 90% mortality in the lodgepole pine stands and already have diminished visual quality characteristics. Treatments would negatively affect visual quality over the short-term but would likely improve visual quality quicker than through the natural process (waiting for all dead trees to fall) in the heavy beetle kill areas. Design criteria have been developed to minimize the negative effects along the CDNST and other NFST's.

Prescribed fire and hand treatments along the CDNST would preserve the trail prism and no negative impacts from the burning or hand treatments would occur. Smoke generated during prescribed burning and overhead hazard clearing during hand treatments would impact hikers by displacement during treatment periods and visitors may have to relocate to other trails during treatments.

Safety is a constant concern for trail users and crews performing trail maintenance as the overhead hazards are always present along portions of most trails. At present removing dead and down trees along trails is the only maintenance that has been occurring annually, when funding and skilled personnel are available. With the proposed vegetation treatments trails that fall in proposed treatment areas could have overhead hazards removed allowing for other trail maintenance needs (overhead clearing, tread work, brushing, bridge repair, corduroy's, etc.) to be addressed.

Roads

The Forest Service proposes to construct no greater than 600 miles of temporary roads over the ten year period to access the proposed vegetation treatment opportunity areas. The proposed temporary roads would be for administrative use only and would be reclaimed 3 years after treatments completed.

Roads in the analysis area are numerous and provide a multitude of access options for the recreating public. The proposed vegetation treatments would use existing roads and develop temporary roads that could improve access for forest users. Any new two track attracts motorized recreationists and the potential for increased access for OHV use or other motorized user could negatively impact non-motorized users. Increased traffic during implementation of vegetation treatments could negatively impact forest users in localized areas where treatments are occurring. These effects would be short term as all temporary roads will be reclaimed 3 years after treatments are completed.

ORV's

OHV use may be slightly impacted by the proposed vegetation treatments that may reduce access, and possibly cause short term area closures. As has been observed in the last five years OHV use has continued to increase whether the vegetation treatments have been occurring or not, recreation visitors and OHV use has been increasing and will continue to increase as more people visit the forest. New temporary roads could increase unwanted ORV use into areas that they haven't accessed before and an increase in resource damage in those areas could occur.

Unauthorized Roads and Trails

Unauthorized roads and trails would continue to be a problem and the proposed treatments may lead to an increase in unauthorized trails and roads in some areas where they are extended from proposed temporary roads.

Recreation User Conflicts

Recreation user conflicts could be exacerbated with mechanical treatments allowing for more access with motorized OHV's and an increase in noise or sounds heard in areas where people are looking for solitude.

Cumulative Effects – Modified Proposed Action

Developed recreation would likely not see any significant difference with the modified proposed action alternative, as most hazard trees in developed areas are addressed annually. Campgrounds or other developed sites that are closed or inaccessible due to hazard trees could see treatments that provide for access or allow to be opened for public use. Areas around developed sites that do not get any vegetation treatments would continue to see dead and dying trees accumulate on the ground and hung up in the canopies.

In dispersed recreation areas hazard trees in some areas would be removed by treatments and would improve on some dispersed recreation activities. Even with the proposed treatments some areas would remain and it would be up to the public to be aware of the hazards in the forest and to address them if they wanted to use some dispersed sites.

Wilderness and Roadless areas would continue to have beetle killed trees falling during windy times or when soil moisture was high. The proposed treatments would have no effect on wilderness and tree fall would continue accumulate along trails and other desired recreation areas. Proposed treatments adjacent to roadless area boundaries could reduce cumulative effects of falling trees and trees

accumulating on the ground for some recreationist that use these areas for dispersed recreation activities.

If treatments along the Continental Divide National Scenic Trail or National Forest System trails are implemented the cumulative buildup of fallen trees along and on the trails would be reduced in treatment areas. The noticeable effects of the treatments on visual characteristics would be the new disturbance to areas, but many areas with heavy beetle kill have had a decline in visual characteristics by the constant tree fall and jackstrawed areas of dead beetle killed trees.

Annual maintenance along the trails does not keep up with the increasing numbers of trees on the trails and annual maintenance occurs on fewer miles due to the increasing number of trees on the trails. Treatments would allow overhead hazards and downed logs to be removed along and adjacent to the trails. Annual maintenance other than logging out would become possible if treatments occurred.

No new permanent roads would be constructed but up to 600 miles of temporary roads would be constructed and reclaimed within 3 years after treatments that may add to the already numerous miles of roads in the project area. With new roads, even temporary roads comes additional use from motorized recreationist that seem to find every possible route and use it. This would compound resource damage in many areas and have a negative effect on some resources.

The popularity of ORV/UTV use in National Forests is likely to continue to increase well into the foreseeable future. Therefore, it may be reasonably anticipated that additional ORV users would likely seek out even more opportunities for off-road recreation, further intensifying areas that are already heavily impacted. Temporary roads would be found and utilized by motorized enthusiasts and some additional resource damage is likely to occur.

Under the modified proposed action alternative braiding along with soil and water resource damage on designated routes and user created routes would continue to occur and the negative impacts would continue to be added to already numerous areas that have been negatively impacted by increased unwanted ORV/UTV use.

COMPLIANCE WITH REGULATORY DIRECTION

The 2003 Medicine Bow National Forest Revised Land and Resource Management Plan (Forest Plan) guide natural resource management activities and provide an overall strategy for managing the Forest. The intent of the direction in the Forest Plan is to manage National Forest System (NFS) lands for multiple uses. The Forest Plan includes specific direction on how to manage different land areas, or management areas. Based on the desired condition of the overall Forest, desired condition statements for individual Management Areas and Geographic Areas on the Forest have been developed. Each Management Area has a different management emphasis where in specific uses are emphasized over other uses.

A desired condition is developed, based on what exists now, knowledge of how it got that way, what is ecologically possible, what is economically feasible, and what is socially desirable. A description of a desired future condition provides the management goals for an area. Goals for each resource are based on the general desired condition discussed in the Medicine Bow Forest Plan (pp. 1-13 through 1-24).

The desired condition for recreation, as described by the Forest Plan in general terms, is to maintain or improve all existing opportunities that are currently available.

The Modified Proposed Action has been designed with and include recommended best management practices, and design criteria which if effectively implemented, would be consistent with the recreation resource Forest Plan standards, guidelines and goals described above.

No Forest Plan amendment would be required to ensure project consistency with Forest Plan direction for management of recreation resources. Design criteria have been developed to mitigate potential negative impacts to the Continental Divide National Scenic Trail.

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Appendix A

Table 1: Affected Environment by Accounting Unit

Accounting Unit	ROS Semi-primitive non-motorized	ROS Semi-primitive motorized	ROS Roaded Natural Modified & Rural	Developed Recreation Sites	Trails	Roads	Roadless	Wilderness	OHV's
Battle Pass 44,360 ac	19,260 ac	10,845 ac	14,255 ac	1	7 trails 31 miles 9 miles CDT	66 miles open 23 miles closed	4 IRA 12,493 ac	16,651 ac	8 miles ORV trail on CDNST
Big Blackhall 68,627 ac	11,621 ac	24,240 ac	32,767 ac	0	5 trails 15 miles	107 miles open 79 miles closed	3 IRA 18,773 ac	3,512 ac	0 miles ORV trails
Bow Kettle 59,446 ac	13,727 ac	5,001 ac	40,719 ac	1	12 trails 29 miles	184 miles open 8 miles closed	3 IRA 15,011 ac	0 ac	3 miles ORV trails
Cedar Brush 57,694 ac	7,057 ac	7,974 ac	42,663 ac	1	13 trails 29 miles	138 miles open 30 miles closed	3 IRA 13,956 ac	0 ac	14 miles ORV trails
Fox Wood 82,583 ac	447 ac	16,449 ac	65,687 ac	2	1 trail 1 mile	431 miles open 23 miles closed	2 IRA 5,873 ac	0 ac	0 miles ORV

French Douglas 63,125 ac	18,423 ac	295 ac	44,407 ac	1	5 Trails 51 miles open	176 miles open 74 miles closed	3 IRA 12,034 ac	10,118 ac	20 miles ORV
Green Hog 61,915 ac	26,798 ac	15,388 ac	19,728 ac	3	9 trails 60 miles with 17 miles CDNST	75 miles open 57 miles closed	4 IRA 16,448 ac	19,845 ac	8 mi ORV trails
Jack Savery 79,139 ac	2,758 ac	26,917 ac	45,712 ac	2	2 trails 26 miles with 12 miles CDNST	240 mi. open 71 miles closed	6 IRA 37,200 ac	0 ac	14 miles ORV trails
North Corner 209,417 ac	6,919 ac	11,620 ac	190,479 ac	12	3 trails 11 miles	110 miles open 33 miles closed	4 IRA 20,040 ac	0 ac	0 miles ORV trails
Owen Sheep 22,535 ac	18,280 ac	1,874 ac	2,382 ac	1	1 trail 15 miles	22 miles open 10 miles closed	1 IRA 17,614 ac	0 ac	0 miles ORV trails
Pelton Platte 48,962 ac	24,979 ac	6,001 ac	17,981 ac	4	7 trails 31 miles	96 miles open 6 miles closed	3 IRA 9,152 ac	22,510 ac	0 miles ORV trails
Rock Morgan 133,326 ac	14,117 ac	15,970 ac	103,238 ac	1	6 trails 24 miles	104 miles open 33 miles closed	2 IRA 26,921 ac	0	0 miles ORV trails
Sandy Battle 94,484 ac	1251 ac	53,842 ac	27,738 ac	1	6 trails 12 miles	248 miles open 26 miles closed	8 IRA 28,482	1,195 ac	7 miles ORV trails

West French 68,856 ac	6,654 ac	5,115 ac	57,087 ac	4	13 trails 22 miles	206 miles open 67 miles closed	4 IRA 9,326 ac	5,157 ac	0 miles ORV trails
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